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Federal Communications Commission  
Office of the Secretary

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February 19, 2010

**VIA FEDERAL EXPRESS**

Federal Communications Commission  
1280 Fairfield Road  
Gettysburg, PA 17325

Re: *Request for Special Temporary Authority*

Dear Sir or Madam:

On behalf of Stratos Offshore Services Company, enclosed please find an original and four (4) copies of an application seeking Special Temporary Authority ("STA") to operate links in the Wireless Communications Service ("WCS") at various points within twelve (12) nautical miles of the Gulf of Mexico shoreline. Inasmuch as ULS is not presently equipped to allow the electronic preparation and submission of WCS STA requests, the applicant respectfully requests a waiver of the Commission's electronic filing requirements to allow submission of this request in paper form.<sup>1</sup> There are no Commission or application processing fees applicable to this filing.

Kindly contact the undersigned with any questions you may have regarding this application.

Sincerely,

WILKINSON BARKER KNAUER, LLP

*Christine M. Crowe*  
RECV'D & INSPECTED  
Christine M. Crowe

Attachments

FEB 22 2010

FCC-GBG MAILROOM

<sup>1</sup> 47 C.F.R. § 1.913(b).

**FCC FORM 601**  
**FOREIGN OWNERSHIP DISCLOSURE**  
**PAGE 1**

Stratos Offshore Services Company ("Stratos Offshore") is a wholly-owned direct subsidiary of Stratos Holdings, Inc. (a Delaware corporation), which is a wholly-owned direct subsidiary of Stratos Wireless Inc. ("Stratos Wireless") (a Canadian corporation). In turn, Stratos Wireless is a wholly-owned direct subsidiary of Stratos Global Corporation ("Stratos Global") (also a Canadian corporation). On January 16, 2009, a transfer of control was approved involving Stratos Global and its subsidiaries, including Stratos Offshore. *See In the Matter of Robert M. Franklin, Transferor and Inmarsat, plc, Transferee, Memorandum Opinion and Order and Declaratory Ruling, DA 09-117 (Jan. 16, 2009)* ("Order"). Specifically, the *Order* approved a transfer of control of Stratos Offshore's ultimate parent corporation, Stratos Global, from Mr. Franklin to Inmarsat plc ("Inmarsat"), a company formed under the laws of England and Wales. In addition, the *Order* contained a Declaratory Ruling approving the foreign ownership of Stratos Global, and its subsidiaries, by Inmarsat. *See Order at ¶ 70-71.* The transaction set forth in the *Order* was consummated by the parties on April 15, 2009.

FCC FORM 601  
STA REQUEST  
PAGE 1 of 3

**REQUEST FOR SPECIAL TEMPORARY AUTHORITY**

Stratos Offshore Services Company ("Stratos") hereby requests pursuant to Section 1.931(a) of the Commission's Rules a special temporary authority ("STA") for a period of 180 days to allow operation of certain 2.3 GHz point-to-point Wireless Communications Service ("WCS") microwave links in the Gulf of Mexico.<sup>1</sup> The specific links to be authorized under the requested STA are identified in Attachment A.

Stratos is an international provider of vital communications resources, including the largest and only comprehensive communications network in the Gulf of Mexico. This network, consisting of microwave, satellite, and other forms of radio communications, links together hundreds of offshore oil and gas exploration and production platforms. Stratos' customers rely on these communications resources to monitor unmanned facilities, control sea traffic and, in the event of emergencies, to coordinate fire, safety and rescue personnel. Stratos is the licensee of all four 2.3 GHz band WCS licenses covering the Gulf of Mexico service area, and utilizes that spectrum extensively in providing service to its customers.<sup>2</sup> These 2.3 GHz band WCS licenses authorize Stratos to deploy facilities anywhere within the Gulf of Mexico service area, which begins 12 nautical miles from the shoreline and extends outward into the Gulf.<sup>3</sup>

Stratos recently discovered that the links identified in Attachment A have been operating within 12 nautical miles of the shoreline, without the requisite authorization. The links at issue are crucial for the monitoring and protecting of customers' vital offshore assets. They are critical to the coordination of public safety operations in the event of emergencies, including the safety of workers and the prevention and control of environmental hazards such as oil spills. In addition, continued operation on WCS spectrum is the only viable means for maintaining these critical communications. Stratos cannot simply reprogram the end-user equipment to operate on other frequencies, such as the unlicensed 2.4 GHz band; any such frequency change would require a change-out of customer equipment that is not practicable within the necessary timeframe.

Stratos is seeking an STA to permit the continued operation of these links on an interim basis so that those on offshore platforms served via the links will retain their ability to communicate in the event of an emergency or natural disaster while Stratos secures appropriate authority for continued operations in this area. To that end, Stratos is commencing spectrum lease negotiations with the land-based WCS licensees in the affected areas (NW Spectrum Co., WCS Wireless License Subsidiary, LLC (a subsidiary of NextWave), BellSouth Mobile Data, Inc. and Unrestricted Subsidiary Funding Company (a subsidiary of Sprint)), and is optimistic that within the term of the requested

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<sup>1</sup> 47 C.F.R. § 1.931.

<sup>2</sup> KNLB212, KNLB319, KNLB320, and KNLB321.

<sup>3</sup> See 47 C.F.R. § 27.6(a)(2).

FCC FORM 601  
STA REQUEST  
PAGE 2 of 3

STA it will be being able to apply to the Commission for consent to spectrum leases covering the operations at issue. Of course, until the Commission authorizes such a spectrum lease, any use of the 2.3 GHz band pursuant to the requested STA would be on a purely secondary basis, and Stratos will terminate such operations immediately should it cause harmful interference to NW Spectrum, WCS Wireless License, BellSouth Mobile and Unrestricted Sub. As is evidenced by Attachment B, NW Spectrum, WCS Wireless License, BellSouth Mobile and Unrestricted Sub do not object to grant of the requested STA.

By way of background, Stratos acquired its four WCS licenses in 2000 from Shell Offshore Services Company ("Shell") pursuant to FCC consent.<sup>4</sup> Two of the links at issue here (Links BA451-BAA19 and 43AA-WD89A on Attachment A) are used for backhaul, and were part of the network Stratos acquired from Shell. While some Shell employees joined Stratos after the acquisition, none of the employees responsible for the engineering of Shell's WCS system remain employed by Stratos at this time. However, based upon the due diligence it has conducted, Stratos believes that these links were placed into service as the result of a lack of understanding by Shell that the station authorization for the Gulf of Mexico service area did not permit operations within 12 nautical miles of the shoreline, absent other authority or arrangement. Stratos believes that the other links identified on Attachment A (which are "last-mile" facilities to customer offshore rig locations) were placed into service in the 2007-2008 timeframe based upon either an assumption that such operations must have been authorized since the prior licensee had placed links into service within the area, or by a similar lack of understanding of the border of the Gulf of Mexico license area.

Stratos recently discovered these errors in connection with its review of available spectrum being offered in the auction of Broadband Radio Service ("BRS") licenses, since BRS license areas in and adjacent to the Gulf of Mexico are subject to the same provisions as are WCS licenses with respect to operation in the Gulf within 12 nautical miles of the shoreline. Upon ascertaining the scope of the situation, Stratos contacted the affected WCS land-based licensees and is filing the instant request for STA to secure a temporary solution to the problem, which Stratos intends to supplement with a more permanent solution as soon as possible.

Stratos therefore requests that the Commission grant this STA request for a period of 180 days. In addition, inasmuch as ULS is not equipped to allow the electronic preparation and submission of WCS STA requests, the applicant respectfully requests a waiver of the Commission's electronic application filing requirements in order to file the instant request in paper form.<sup>5</sup> The Commission may waive its rules for good cause shown.<sup>6</sup> The Commission also may grant a waiver where application of its rules would

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<sup>4</sup> See FCC File No. 0000057349.

<sup>5</sup> 47 C.F.R. § 1.913(b).

<sup>6</sup> 47 C.F.R. § 1.3.

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STA REQUEST  
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be inequitable, unduly burdensome or contrary to the public interest, or where the applicant has no reasonable alternative.<sup>7</sup> Both standards are satisfied in this instance. Specifically, absent waiver of the Commission's rules, the applicant would be foreclosed from requesting an STA, leaving it with no reasonable alternative. As a result, Commission approval of this request will serve the public interest, convenience and necessity.

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<sup>7</sup> 47 C.F.R. § 1.925(b)(3).

**ATTACHMENT A**

## 2.3 GHz Links Operating Within 12 Nautical Miles of Shoreline

| Back Bone Area   | Frequency |          |         |          |               |
|------------------|-----------|----------|---------|----------|---------------|
|                  | Backbone  |          | SU      |          | Channel Block |
| Matagorda Island | MI 703    | 2311.250 | MI 696  | 2356.250 | B             |
|                  | MI 622    | 2356.250 | MI 623  | 2311.250 | B             |
| SA               | SA 10     | 2311.250 | WC 294  | 2356.250 | B             |
| West Cameron     | WC 71     | 2313.750 | WC 65   | 2358.750 | B             |
|                  | WC 71     | 2312.083 | WC 66A  | 2357.083 | B             |
|                  | WC 71     | 2311.250 | WC 66B  | 2356.250 | B             |
|                  | WC 71     | 2314.583 | WC144   | 2359.583 | B             |
|                  | WC 71     | 2310.417 | EC 47   | 2355.417 | B             |
|                  | WC 71     | 2312.917 | EC2A    | 2357.917 | B             |
| S.Pelto          | PL 10     | 2311.250 | PL2JA   | 2356.250 | B             |
|                  | PL 10     | 2310.417 | SS 91   | 2355.417 | B             |
| S.Pass           | SP 57/78  | 2314.583 | SP 52   | 2359.583 | B             |
|                  | SP 57/78  | 2312.917 | SP 75   | 2357.917 | B             |
| Main Pass        | MP140B    | 2311.250 | MP 140A | 2356.250 | B             |
| Brazos           | BA 451    | 2347.500 | BAA 19  | 2315.500 | D&C           |
| West Delta       | WD 90     | 2357.083 | WD 105  | 2312.083 | B             |
| Grand Isle       | GI 43AA   | 2307.5   | WD 89A  | 2352.5   | A             |

**ATTACHMENT B**

**CONSENT OF BELLSOUTH MOBILE DATA, INC.**



AT&T Services, Inc.  
675 W Peachtree St NE  
4300  
Atlanta, GA 30375-0001

F: 404.614.4054

February 16, 2010

Bruce Henoch  
Vice President, Legal and Regulatory Affairs  
Stratos Offshore Services Company  
6550 Rock Spring Drive, Suite 650  
Bethesda, Maryland 20817

Re: Temporary Use of WCS Spectrum in 12 Mile Coastal Zone  
Under Call Signs KNLB214 and KNLB237

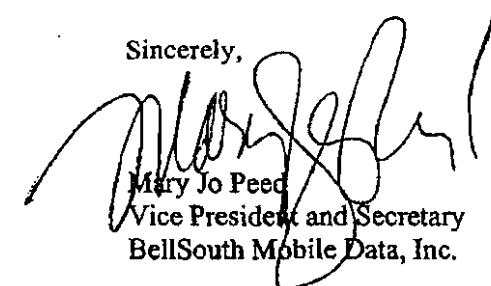
Dear Mr. Henoch:

In response to your request for temporary use of BellSouth Mobile Data, Inc.'s ("BellSouth") WCS spectrum for a period of one hundred and eighty (180) days to permit the continued operation of links necessary for the monitoring and protection of customers' offshore assets, BellSouth grants permission for the temporary use of its licensed WCS spectrum, Call Signs KNLB214 and KNLB237, under the following conditions:

- The temporary facilities must operate under the specifications included in Attachment 1 hereto.
- BellSouth must be informed of any changes and approve such changes in advance of their implementation.
- Temporary use of the licensed WCS spectrum referenced above begins upon grant of the associated STA by the Commission, and ends no later than 180 days thereafter.
- Stratos will provide contact information that is available 24 hours each day, 7 days each week, during the period of time the temporary equipment is operational to allow BellSouth or its affiliates to report any interference to its operations associated with these licenses. The contact information will be delivered to Jeannie Harris of AT&T at 308 S. Akard Street, Room 830.A6, Dallas, TX 75202, email: [hj7493@att.com](mailto:hj7493@att.com), and will include the contact's name, title, company name, office telephone number, mobile telephone number, e-mail address, mailing address and a back-up contact if the primary contact is unavailable due to situations beyond his/her control.
- If BellSouth or any of its affiliates report any interference, Stratos will immediately turn off the temporary equipment until the source of the interference is resolved to BellSouth's satisfaction.

If you have any questions or require additional information, please contact Jeannie Harris  
on 214-858-0906.

Sincerely,



Mary Jo Peed  
Vice President and Secretary  
BellSouth Mobile Data, Inc.

**ATTACHMENT 1**

|                                   | MI-622           | MI-623         |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 28 06 07.00 N    | 28 06 22.50 N  |
| Longitude                         | 096 22 52.90 W   | 096 25 48.90 W |
| True azimuth (°)                  | 275.68           | 95.66          |
| Vertical angle (°)                | -0.09            | 0.06           |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 85.00            | 65.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Vertical         |                |
| Path length (mi)                  | 3.00             |                |
| Free space loss (dB)              | 113.50           |                |
| Atmospheric absorption loss (dB)  | 0.03             |                |
| Net path loss (dB)                | 59.93            | 59.93          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.10             | 0.10           |
| TX power (dBm)                    | 20.00            | 20.00          |
| EIRP (dBm)                        | 46.80            | 46.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1H 2356.2500V    | 1H 2311.2500V  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -39.93           | -39.93         |
| Thermal fade margin (dB)          | 42.07            | 42.07          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 42.06            | 42.06          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 9.45E-04         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 99.99999         | 99.99999       |
| (sec)                             | 0.15             | 0.15           |
| Annual - multipath (%)            | 100.00000        | 100.00000      |
| (sec)                             | 0.65             | 0.65           |
| (% - sec)                         | 100.00000 - 1.30 |                |

Fri, Dec 04 2009

MAT622-MI623.pl4

Reliability Method - Vigants - Barnett

|                                   | SA10              | WC-294         |
|-----------------------------------|-------------------|----------------|
| Elevation (ft)                    | 0.00              | 0.00           |
| Latitude                          | 29 29 52.80 N     | 29 17 32.80 N  |
| Longitude                         | 093 46 47.60 W    | 093 36 55.70 W |
| True azimuth (°)                  | 144.95            | 325.03         |
| Vertical angle (°)                | -0.13             | -0.06          |
| Antenna model                     | GHF8-23           | GHF8-23        |
| Antenna height (ft)               | 145.00            | 90.00          |
| Antenna gain (dBi)                | 33.10             | 33.10          |
| TX line type                      | LDF4-50A          | LDF4-50A       |
| TX line length (ft)               | 145.00            | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60              | 3.60           |
| TX line loss (dB)                 | 5.22              | 3.60           |
| Connector loss (dB)               | 0.20              | 0.20           |
| Frequency (MHz)                   | 2333.00           |                |
| Polarization                      | Horizontal        |                |
| Path length (mi)                  | 17.29             |                |
| Free space loss (dB)              | 128.71            |                |
| Atmospheric absorption loss (dB)  | 0.17              |                |
| Net path loss (dB)                | 71.90             | 71.90          |
| Radio model                       | MDR-8702-2W       | MDR-8702-2W    |
| TX power (watts)                  | 1.00              | 1.00           |
| TX power (dBm)                    | 30.00             | 30.00          |
| EIRP (dBm)                        | 57.68             | 59.30          |
| Emission designator               | 800KD7W           | 800KD7W        |
| TX Channels                       | 1L 2311.2500H     | 1H 2356.2500H  |
| RX threshold criteria             | BER 10-6          | BER 10-6       |
| RX threshold level (dBm)          | -82.00            | -82.00         |
| Maximum receive signal (dBm)      | -17.00            | -17.00         |
| RX signal (dBm)                   | -41.90            | -41.90         |
| Thermal fade margin (dB)          | 40.10             | 40.10          |
| Dispersive fade margin (dB)       | 70.00             | 70.00          |
| Dispersive fade occurrence factor | 1.00              |                |
| Effective fade margin (dB)        | 40.09             | 40.09          |
| C factor                          | 6.00              |                |
| Fade occurrence factor (Po)       | 1.81E-01          |                |
| Average annual temperature (°F)   | 70.00             |                |
| Worst month - multipath (%)       | 99.99823          | 99.99823       |
| (sec)                             | 46.50             | 46.50          |
| Annual - multipath (%)            | 99.99938          | 99.99938       |
| (sec)                             | 195.31            | 195.31         |
| (% - sec)                         | 99.99876 - 390.82 |                |

Fri, Dec 04 2009

SA10-WC294.pl4

Reliability Method - Vigants - Barnett

|                                   | WC71              | EC-2A          |
|-----------------------------------|-------------------|----------------|
| Elevation (ft)                    | 0.00              | 0.00           |
| Latitude                          | 29 35 34.10 N     | 29 39 34.03 N  |
| Longitude                         | 093 08 55.40 W    | 093 00 13.40 W |
| True azimuth (°)                  | 62.22             | 242.29         |
| Vertical angle (°)                | -0.08             | -0.03          |
| Antenna model                     | GHF8-23A          | GHF8-23        |
| Antenna height (ft)               | 85.00             | 65.00          |
| Antenna gain (dBi)                | 30.60             | 33.10          |
| TX line type                      | LDF4-50A          | LDF4-50A       |
| TX line length (ft)               | 100.00            | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60              | 3.60           |
| TX line loss (dB)                 | 3.60              | 3.60           |
| Connector loss (dB)               | 0.20              | 0.20           |
| Frequency (MHz)                   | 2333.00           |                |
| Polarization                      | Vertical          |                |
| Path length (mi)                  | 9.86              |                |
| Free space loss (dB)              | 123.84            |                |
| Atmospheric absorption loss (dB)  | 0.10              |                |
| Net path loss (dB)                | 67.83             | 67.83          |
| Radio model                       | MDR-8702-2W       | MDR-8702-2W    |
| TX power (watts)                  | 0.10              | 0.10           |
| TX power (dBm)                    | 20.00             | 20.00          |
| EIRP (dBm)                        | 46.80             | 49.30          |
| Emission designator               | 800KD7W           | 800KD7W        |
| TX Channels                       | 1L 2312.9170V     | 1H 2357.9170V  |
| RX threshold criteria             | BER 10-6          | BER 10-6       |
| RX threshold level (dBm)          | -82.00            | -82.00         |
| Maximum receive signal (dBm)      | -17.00            | -17.00         |
| RX signal (dBm)                   | -47.83            | -47.83         |
| Thermal fade margin (dB)          | 34.17             | 34.17          |
| Dispersive fade margin (dB)       | 70.00             | 70.00          |
| Dispersive fade occurrence factor | 1.00              |                |
| Effective fade margin (dB)        | 34.17             | 34.17          |
| C factor                          | 6.00              |                |
| Fade occurrence factor (Po)       | 3.35E-02          |                |
| Average annual temperature (°F)   | 70.00             |                |
| Worst month - multipath (%)       | 99.99871          | 99.99871       |
| (sec)                             | 33.78             | 33.78          |
| Annual - multipath (%)            | 99.99955          | 99.99955       |
| (sec)                             | 141.88            | 141.88         |
| (% - sec)                         | 99.99910 - 283.76 |                |

Fri, Dec 04 2009

WC71-EC2A.pl4

Reliability Method - Vigants - Barnett

|                                   | WC71              | EC-47JP        |
|-----------------------------------|-------------------|----------------|
| Elevation (ft)                    | 0.00              | 0.00           |
| Latitude                          | 29 35 34.10 N     | 29 26 26.30 N  |
| Longitude                         | 093 08 55.40 W    | 092 58 39.60 W |
| True azimuth (°)                  | 135.44            | 315.53         |
| Vertical angle (°)                | -0.12             | -0.04          |
| Antenna model                     | GHF6-23A          | GHF6-23A       |
| Antenna height (ft)               | 135.00            | 85.00          |
| Antenna gain (dBi)                | 30.60             | 30.60          |
| TX line type                      | LDF4-50A          | LDF4-50A       |
| TX line length (ft)               | 100.00            | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60              | 3.60           |
| TX line loss (dB)                 | 3.60              | 3.60           |
| Connector loss (dB)               | 0.20              | 0.20           |
| Frequency (MHz)                   | 2333.00           |                |
| Polarization                      | Horizontal        |                |
| Path length (mi)                  | 14.70             |                |
| Free space loss (dB)              | 127.30            |                |
| Atmospheric absorption loss (dB)  | 0.15              |                |
| Net path loss (dB)                | 73.85             | 73.85          |
| Radio model                       | MDR-8702-2W       | MDR-8702-2W    |
| TX power (watts)                  | 1.00              | 1.00           |
| TX power (dBm)                    | 30.00             | 30.00          |
| EIRP (dBm)                        | 56.80             | 56.80          |
| Emission designator               | 800KD7W           | 800KD7W        |
| TX Channels                       | 1L 2310.4170H     | 1H 2355.4170H  |
| RX threshold criteria             | BER 10-6          | BER 10-6       |
| RX threshold level (dBm)          | -82.00            | -82.00         |
| Maximum receive signal (dBm)      | -17.00            | -17.00         |
| RX signal (dBm)                   | -43.85            | -43.85         |
| Thermal fade margin (dB)          | 38.15             | 38.15          |
| Dispersive fade margin (dB)       | 70.00             | 70.00          |
| Dispersive fade occurrence factor | 1.00              |                |
| Effective fade margin (dB)        | 38.15             | 38.15          |
| C factor                          | 8.00              |                |
| Fade occurrence factor (Po)       | 1.11E-01          |                |
| Average annual temperature (°F)   | 70.00             |                |
| Worst month - multipath (%)       | 99.99830          | 99.99830       |
| (sec)                             | 44.74             | 44.74          |
| Annual - multipath (%)            | 99.99940          | 99.99940       |
| (sec)                             | 187.90            | 187.90         |
| (% - sec)                         | 99.99881 - 375.80 |                |

Fri, Dec 04 2009

WC71-EC47JP.pl4

Reliability Method - Vigants - Barnett

|                                   | WC71            | WC-66A         |
|-----------------------------------|-----------------|----------------|
| Elevation (ft)                    | 0.00            | 0.00           |
| Latitude                          | 29 35 34.10 N   | 29 39 07.40 N  |
| Longitude                         | 093 08 55.40 W  | 093 07 18.70 W |
| True azimuth (°)                  | 21.60           | 201.62         |
| Vertical angle (°)                | -0.05           | -1.61e-03      |
| Antenna model                     | GHF6-23A        | GHF6-23A       |
| Antenna height (ft)               | 54.00           | 45.00          |
| Antenna gain (dBi)                | 30.60           | 30.60          |
| TX line type                      | LDF4-50A        | LDF4-50A       |
| TX line length (ft)               | 100.00          | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60            | 3.60           |
| TX line loss (dB)                 | 3.60            | 3.60           |
| Connector loss (dB)               | 0.20            | 0.20           |
| Frequency (MHz)                   | 2333.00         |                |
| Polarization                      | Horizontal      |                |
| Path length (mi)                  | 4.39            |                |
| Free space loss (dB)              | 116.81          |                |
| Atmospheric absorption loss (dB)  | 0.04            |                |
| Net path loss (dB)                | 63.25           | 63.25          |
| Radio model                       | MDR-8702-2W     | MDR-8702-2W    |
| TX power (watts)                  | 0.32            | 0.32           |
| TX power (dBm)                    | 25.00           | 25.00          |
| EIRP (dBm)                        | 51.80           | 51.80          |
| Emission designator               | 800KD7W         | 800KD7W        |
| TX Channels                       | 1L 2312.0830H   | 1H 2357.0830H  |
| RX threshold criteria             | BER 10-6        | BER 10-6       |
| RX threshold level (dBm)          | -82.00          | -82.00         |
| Maximum receive signal (dBm)      | -17.00          | -17.00         |
| RX signal (dBm)                   | -38.25          | -38.25         |
| Thermal fade margin (dB)          | 43.75           | 43.75          |
| Dispersive fade margin (dB)       | 70.00           | 70.00          |
| Dispersive fade occurrence factor | 1.00            |                |
| Effective fade margin (dB)        | 43.74           | 43.74          |
| C factor                          | 8.00            |                |
| Fade occurrence factor (Po)       | 2.96E-03        |                |
| Average annual temperature (°F)   | 70.00           |                |
| Worst month - multipath (%)       | 99.99999        | 99.99999       |
| (sec)                             | 0.33            | 0.33           |
| Annual - multipath (%)            | 100.00000       | 100.00000      |
| (sec)                             | 1.38            | 1.38           |
| (% - sec)                         | 99.99999 - 2.76 |                |

Fri, Dec 04 2009

WC71-WC66A.pl4

Reliability Method - Vigants - Barnett

|                                   | WC71            | WC-66B         |
|-----------------------------------|-----------------|----------------|
| Elevation (ft)                    | 0.00            | 0.00           |
| Latitude                          | 29 35 34.10 N   | 29 38 46.70 N  |
| Longitude                         | 093 08 55.40 W  | 093 08 31.40 W |
| True azimuth (°)                  | 6.21            | 186.22         |
| Vertical angle (°)                | -0.01           | -0.03          |
| Antenna model                     | GHF6-23A        | GHF6-23A       |
| Antenna height (ft)               | 47.00           | 50.00          |
| Antenna gain (dBi)                | 30.60           | 30.60          |
| TX line type                      | LDF4-50A        | LDF4-50A       |
| TX line length (ft)               | 100.00          | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60            | 3.60           |
| TX line loss (dB)                 | 3.60            | 3.60           |
| Connector loss (dB)               | 0.20            | 0.20           |
| Frequency (MHz)                   | 2333.00         |                |
| Polarization                      | Vertical        |                |
| Path length (mi)                  | 3.71            |                |
| Free space loss (dB)              | 115.34          |                |
| Atmospheric absorption loss (dB)  | 0.04            |                |
| Net path loss (dB)                | 61.77           | 61.77          |
| Radio model                       | MDR-8702-2W     | MDR-8702-2W    |
| TX power (watts)                  | 0.20            | 0.20           |
| TX power (dBm)                    | 23.00           | 23.00          |
| EIRP (dBm)                        | 49.80           | 49.80          |
| Emission designator               | 800KD7W         | 800KD7W        |
| TX Channels                       | 1L 2311.2500V   | 1H 2356.2500V  |
| RX threshold criteria             | BER 10-6        | BER 10-6       |
| RX threshold level (dBm)          | -82.00          | -82.00         |
| Maximum receive signal (dBm)      | -17.00          | -17.00         |
| RX signal (dBm)                   | -38.77          | -38.77         |
| Thermal fade margin (dB)          | 43.23           | 43.23          |
| Dispersive fade margin (dB)       | 70.00           | 70.00          |
| Dispersive fade occurrence factor | 1.00            |                |
| Effective fade margin (dB)        | 43.22           | 43.22          |
| C factor                          | 6.00            |                |
| Fade occurrence factor (Po)       | 1.78E-03        |                |
| Average annual temperature (°F)   | 70.00           |                |
| Worst month - multipath (%)       | 99.99999        | 99.99999       |
| (sec)                             | 0.22            | 0.22           |
| Annual - multipath (%)            | 100.00000       | 100.00000      |
| (sec)                             | 0.94            | 0.94           |
| (% - sec)                         | 99.99999 - 1.88 |                |

Fri, Dec 04 2009

WC71-WC66B.pl4

Reliability Method - Vigants - Barnett

|                                   | WC71                 | WC-144A              |
|-----------------------------------|----------------------|----------------------|
| Elevation (ft)                    | 0.00                 | 0.00                 |
| Latitude                          | 29 35 34.10 N        | 29 25 17.70 N        |
| Longitude                         | 093 08 55.40 W       | 093 09 54.30 W       |
| True azimuth (°)                  | 184.78               | 4.77                 |
| Vertical angle (°)                | -0.10                | -0.03                |
| Antenna model                     | GHF6-23A             | GHF6-23A             |
| Antenna height (ft)               | 100.00               | 66.00                |
| Antenna gain (dBi)                | 30.60                | 30.60                |
| TX line type                      | LDF4-50A             | LDF4-50A             |
| TX line length (ft)               | 100.00               | 100.00               |
| TX line unit loss (dB /100 ft)    | 3.60                 | 3.60                 |
| TX line loss (dB)                 | 3.60                 | 3.60                 |
| Connector loss (dB)               | 0.20                 | 0.20                 |
| Frequency (MHz)                   | 2333.00              |                      |
| Polarization                      | Horizontal           |                      |
| Path length (mi)                  | 11.83                |                      |
| Free space loss (dB)              | 125.42               |                      |
| Atmospheric absorption loss (dB)  | 0.12                 |                      |
| Net path loss (dB)                | 71.94                | 71.94                |
| Radio model                       | MDR-8702-2W          | MDR-8702-2W          |
| TX power (watts)                  | 1.00                 | 1.00                 |
| TX power (dBm)                    | 30.00                | 30.00                |
| EIRP (dBm)                        | 56.80                | 56.80                |
| Emission designator               | 800KD7W              | 800KD7W              |
| TX Channels                       | 1L 2314.5830H        | 1H 2359.5830H        |
| RX threshold criteria             | BER 10 <sup>-6</sup> | BER 10 <sup>-6</sup> |
| RX threshold level (dBm)          | -82.00               | -82.00               |
| Maximum receive signal (dBm)      | -17.00               | -17.00               |
| RX signal (dBm)                   | -41.94               | -41.94               |
| Thermal fade margin (dB)          | 40.06                | 40.06                |
| Dispersive fade margin (dB)       | 70.00                | 70.00                |
| Dispersive fade occurrence factor | 1.00                 |                      |
| Effective fade margin (dB)        | 40.06                | 40.06                |
| C factor                          | 6.00                 |                      |
| Fade occurrence factor (Po)       | 5.80E-02             |                      |
| Average annual temperature (°F)   | 70.00                |                      |
| Worst month - multipath (%)       | 99.99943             | 99.99943             |
| (sec)                             | 15.04                | 15.04                |
| Annual - multipath (%)            | 99.99980             | 99.99980             |
| (sec)                             | 63.19                | 63.19                |
| (% - sec)                         | 99.99960 - 126.37    |                      |

Fri, Dec 04 2009

WC71-WC144A.pl4

Reliability Method - Vigants - Barnett

|                                   | WC71             | WC-65JA        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 29 35 34.10 N    | 29 37 39.20 N  |
| Longitude                         | 093 08 55.40 W   | 093 10 20.70 W |
| True azimuth (°)                  | 329.22           | 149.21         |
| Vertical angle (°)                | -0.03            | 4.33e-03       |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 50.00            | 45.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 2.79             |                |
| Free space loss (dB)              | 112.86           |                |
| Atmospheric absorption loss (dB)  | 0.03             |                |
| Net path loss (dB)                | 59.29            | 59.29          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.10             | 0.10           |
| TX power (dBm)                    | 20.00            | 20.00          |
| EIRP (dBm)                        | 46.80            | 46.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1L 2313.7500H    | 1H 2358.7500H  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -39.29           | -39.29         |
| Thermal fade margin (dB)          | 42.71            | 42.71          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 42.71            | 42.71          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 7.57E-04         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 100.00000        | 100.00000      |
| (sec)                             | 0.11             | 0.11           |
| Annual - multipath (%)            | 100.00000        | 100.00000      |
| (sec)                             | 0.45             | 0.45           |
| (% - sec)                         | 100.00000 - 0.90 |                |

Fri, Dec 04 2009

WC71-WC65JA.pl4

Reliability Method - Vigants - Barnett

|                                   | PL10            | PL-2JA         |
|-----------------------------------|-----------------|----------------|
| Elevation (ft)                    | 0.00            | 0.00           |
| Latitude                          | 28 56 53.00 N   | 29 00 27.00 N  |
| Longitude                         | 090 43 26.00 W  | 090 39 26.00 W |
| True azimuth (°)                  | 44.58           | 224.62         |
| Vertical angle (°)                | -0.04           | -0.03          |
| Antenna model                     | GHF6-23A        | GHF6-23A       |
| Antenna height (ft)               | 65.00           | 63.00          |
| Antenna gain (dBi)                | 30.60           | 30.60          |
| TX line type                      | LDF4-50A        | LDF4-50A       |
| TX line length (ft)               | 100.00          | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60            | 3.60           |
| TX line loss (dB)                 | 3.60            | 3.60           |
| Connector loss (dB)               | 0.20            | 0.20           |
| Frequency (MHz)                   | 2333.00         |                |
| Polarization                      | Horizontal      |                |
| Path length (mi)                  | 5.75            |                |
| Free space loss (dB)              | 119.15          |                |
| Atmospheric absorption loss (dB)  | 0.06            |                |
| Net path loss (dB)                | 65.61           | 65.61          |
| Radio model                       | MDR-8702-2W     | MDR-8702-2W    |
| TX power (watts)                  | 0.50            | 0.50           |
| TX power (dBm)                    | 27.00           | 27.00          |
| EIRP (dBm)                        | 53.80           | 53.80          |
| Emission designator               | 800KD7W         | 800KD7W        |
| TX Channels                       | 1L 2311.2500H   | 1H 2356.2500H  |
| RX threshold criteria             | BER 10-6        | BER 10-6       |
| RX threshold level (dBm)          | -82.00          | -82.00         |
| Maximum receive signal (dBm)      | -17.00          | -17.00         |
| RX signal (dBm)                   | -38.61          | -38.61         |
| Thermal fade margin (dB)          | 43.39           | 43.39          |
| Dispersive fade margin (dB)       | 70.00           | 70.00          |
| Dispersive fade occurrence factor | 1.00            |                |
| Effective fade margin (dB)        | 43.38           | 43.38          |
| C factor                          | 6.00            |                |
| Fade occurrence factor (Po)       | 6.65E-03        |                |
| Average annual temperature (°F)   | 70.00           |                |
| Worst month - multipath (%)       | 99.99997        | 99.99997       |
| (sec)                             | 0.80            | 0.80           |
| Annual - multipath (%)            | 99.99999        | 99.99999       |
| (sec)                             | 3.37            | 3.37           |
| (% - sec)                         | 99.99998 - 6.74 |                |

Fri, Dec 04 2009

PL10-PL2JA.pl4

Reliability Method - Vigants - Barnett

|                                   | PL10            | SS-91B         |
|-----------------------------------|-----------------|----------------|
| Elevation (ft)                    | 0.00            | 0.00           |
| Latitude                          | 28 56 53.00 N   | 28 55 07.65 N  |
| Longitude                         | 090 43 26.00 W  | 090 46 22.70 W |
| True azimuth (°)                  | 235.88          | 55.86          |
| Vertical angle (°)                | -0.28           | 0.24           |
| Antenna model                     | GHF6-23A        | GHF6-23A       |
| Antenna height (ft)               | 130.00          | 45.00          |
| Antenna gain (dBi)                | 30.60           | 30.60          |
| TX line type                      | LDF4-50A        | LDF4-50A       |
| TX line length (ft)               | 130.00          | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60            | 3.60           |
| TX line loss (dB)                 | 4.88            | 3.60           |
| Connector loss (dB)               | 0.20            | 0.20           |
| Frequency (MHz)                   | 2333.00         |                |
| Polarization                      | Horizontal      |                |
| Path length (mi)                  | 3.59            |                |
| Free space loss (dB)              | 115.07          |                |
| Atmospheric absorption loss (dB)  | 0.04            |                |
| Net path loss (dB)                | 62.58           | 62.58          |
| Radio model                       | MDR-8702-2W     | MDR-8702-2W    |
| TX power (watts)                  | 0.10            | 0.10           |
| TX power (dBm)                    | 20.00           | 20.00          |
| EIRP (dBm)                        | 45.72           | 46.80          |
| Emission designator               | 800KD7W         | 800KD7W        |
| TX Channels                       | 1L 2310.4170H   | 1H 2355.4170H  |
| RX threshold criteria             | BER 10-6        | BER 10-8       |
| RX threshold level (dBm)          | -82.00          | -82.00         |
| Maximum receive signal (dBm)      | -17.00          | -17.00         |
| RX signal (dBm)                   | -42.58          | -42.58         |
| Thermal fade margin (dB)          | 39.42           | 39.42          |
| Dispersive fade margin (dB)       | 70.00           | 70.00          |
| Dispersive fade occurrence factor | 1.00            |                |
| Effective fade margin (dB)        | 39.42           | 39.42          |
| C factor                          | 6.00            |                |
| Fade occurrence factor (Po)       | 1.62E-03        |                |
| Average annual temperature (°F)   | 70.00           |                |
| Worst month - multipath (%)       | 99.99998        | 99.99998       |
| (sec)                             | 0.49            | 0.49           |
| Annual - multipath (%)            | 99.99999        | 99.99999       |
| (sec)                             | 2.05            | 2.05           |
| (% - sec)                         | 99.99999 - 4.10 |                |

Mon, Dec 07 2009

PL10-SS91B.pl4

Reliability Method - Vigants - Barnett

|                                   | SP57/78B           | SP-52-A        |
|-----------------------------------|--------------------|----------------|
| Elevation (ft)                    | 0.00               | 0.00           |
| Latitude                          | 28 50 38.80 N      | 28 50 28.50 N  |
| Longitude                         | 089 23 47.10 W     | 089 08 22.46 W |
| True azimuth (°)                  | 90.66              | 270.79         |
| Vertical angle (°)                | -0.09              | -0.08          |
| Antenna model                     | GHF6-23A           | GHF6-23A       |
| Antenna height (ft)               | 110.00             | 100.00         |
| Antenna gain (dBi)                | 30.60              | 30.60          |
| TX line type                      | LDF4-50A           | LDF4-50A       |
| TX line length (ft)               | 100.00             | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60               | 3.60           |
| TX line loss (dB)                 | 3.60               | 3.60           |
| Connector loss (dB)               | 0.20               | 0.20           |
| Frequency (MHz)                   | 2333.00            |                |
| Polarization                      | Horizontal         |                |
| Path length (mi)                  | 15.58              |                |
| Free space loss (dB)              | 127.81             |                |
| Atmospheric absorption loss (dB)  | 0.16               |                |
| Net path loss (dB)                | 74.36              | 74.36          |
| Radio model                       | MDR-8702-2W        | MDR-8702-2W    |
| TX power (watts)                  | 0.50               | 0.50           |
| TX power (dBm)                    | 27.00              | 27.00          |
| EIRP (dBm)                        | 53.80              | 53.80          |
| Emission designator               | 800KD7W            | 800KD7W        |
| TX Channels                       | 1L 2314.5830H      | 1H 2359.5830H  |
| RX threshold criteria             | BER 10-6           | BER 10-6       |
| RX threshold level (dBm)          | -82.00             | -82.00         |
| Maximum receive signal (dBm)      | -17.00             | -17.00         |
| RX signal (dBm)                   | -47.36             | -47.36         |
| Thermal fade margin (dB)          | 34.64              | 34.64          |
| Dispersive fade margin (dB)       | 70.00              | 70.00          |
| Dispersive fade occurrence factor | 1.00               |                |
| Effective fade margin (dB)        | 34.64              | 34.64          |
| C factor                          | 6.00               |                |
| Fade occurrence factor (Po)       | 1.32E-01           |                |
| Average annual temperature (°F)   | 70.00              |                |
| Worst month - multipath (%)       | 99.99545           | 99.99545       |
| (sec)                             | 119.49             | 119.49         |
| Annual - multipath (%)            | 99.99841           | 99.99841       |
| (sec)                             | 501.86             | 501.86         |
| (% - sec)                         | 99.99682 - 1003.71 |                |

Fri, Dec 04 2009

SP5778B-SP52A.pl4

Reliability Method - Vigants - Barnett

|                                   | SP57/78B         | SP-75-A        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 28 50 38.80 N    | 28 48 06.80 N  |
| Longitude                         | 089 23 47.10 W   | 089 17 59.10 W |
| True azimuth (°)                  | 116.36           | 296.40         |
| Vertical angle (°)                | -0.04            | -0.04          |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 65.00            | 65.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 6.54             |                |
| Free space loss (dB)              | 120.28           |                |
| Atmospheric absorption loss (dB)  | 0.07             |                |
| Net path loss (dB)                | 66.74            | 68.74          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.50             | 0.50           |
| TX power (dBm)                    | 27.00            | 27.00          |
| EIRP (dBm)                        | 53.80            | 53.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1L 2312.9170H    | 1H 2357.9170H  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -39.74           | -39.74         |
| Thermal fade margin (dB)          | 42.26            | 42.26          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 42.25            | 42.25          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 9.81E-03         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 99.99994         | 99.99994       |
| (sec)                             | 1.53             | 1.53           |
| Annual - multipath (%)            | 99.99998         | 99.99998       |
| (sec)                             | 6.45             | 6.45           |
| (% - sec)                         | 99.99996 - 12.89 |                |

Fri, Dec 04 2009

SP5778B-SP75-A.pl4

Reliability Method - Vigants - Barnett

|                                   | MP140B           | MP-140A        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 29 17 44.70 N    | 29 17 37.93 N  |
| Longitude                         | 088 50 31.10 W   | 088 51 42.05 W |
| True azimuth (°)                  | 263.79           | 83.78          |
| Vertical angle (°)                | -0.13            | 0.12           |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 65.00            | 51.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 1.20             |                |
| Free space loss (dB)              | 105.52           |                |
| Atmospheric absorption loss (dB)  | 0.01             |                |
| Net path loss (dB)                | 51.93            | 51.93          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.10             | 0.10           |
| TX power (dBm)                    | 20.00            | 20.00          |
| EIRP (dBm)                        | 46.80            | 46.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1L 2311.2500H    | 1H 2356.2500H  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -31.93           | -31.93         |
| Thermal fade margin (dB)          | 50.07            | 50.07          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 50.03            | 50.03          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 6.00E-05         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 100.00000        | 100.00000      |
| (sec)                             | 1.57e-03         | 1.57e-03       |
| Annual - multipath (%)            | 100.00000        | 100.00000      |
| (sec)                             | 6.58e-03         | 6.58e-03       |
| (% - sec)                         | 100.00000 - 0.01 |                |

Fri, Dec 04 2009

MP140B-MP140A.pl4

Reliability Method - Vigants - Barnett

|                                   | WD90B            | WD-105E        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 28 56 16.80 N    | 28 51 04.00 N  |
| Longitude                         | 089 39 35.20 W   | 089 38 03.00 W |
| True azimuth (°)                  | 149.15           | 329.18         |
| Vertical angle (°)                | -0.05            | -0.02          |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 65.00            | 55.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 6.97             |                |
| Free space loss (dB)              | 120.82           |                |
| Atmospheric absorption loss (dB)  | 0.07             |                |
| Net path loss (dB)                | 67.29            | 67.29          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.50             | 0.50           |
| TX power (dBm)                    | 27.00            | 27.00          |
| EIRP (dBm)                        | 53.80            | 53.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1H 2357.0830H    | 1L 2312.0830H  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -40.29           | -40.29         |
| Thermal fade margin (dB)          | 41.71            | 41.71          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 41.70            | 41.70          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 1.18E-02         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 99.99992         | 99.99992       |
| (sec)                             | 2.10             | 2.10           |
| Annual - multipath (%)            | 99.99997         | 99.99997       |
| (sec)                             | 8.84             | 8.84           |
| (% - sec)                         | 99.99994 - 17.67 |                |

Mon, Dec 07 2009

WD90B-WD105E.pl4

Reliability Method - Vigants - Barnett

|                                   | GI-43AA           | WD-89          |
|-----------------------------------|-------------------|----------------|
| Elevation (ft)                    | 0.00              | 0.00           |
| Latitude                          | 29 00 03.00 N     | 28 54 05.00 N  |
| Longitude                         | 089 51 31.00 W    | 089 36 52.00 W |
| True azimuth (°)                  | 114.79            | 294.91         |
| Vertical angle (°)                | -0.07             | -0.11          |
| Antenna model                     | GHF8-23           | GHF8-23        |
| Antenna height (ft)               | 108.00            | 138.00         |
| Antenna gain (dBi)                | 33.10             | 33.10          |
| TX line type                      | LDF4-50A          | LDF4-50A       |
| TX line length (ft)               | 100.00            | 138.00         |
| TX line unit loss (dB /100 ft)    | 3.60              | 3.60           |
| TX line loss (dB)                 | 3.60              | 4.97           |
| Connector loss (dB)               | 0.20              | 0.20           |
| Frequency (MHz)                   | 2333.00           |                |
| Polarization                      | Horizontal        |                |
| Path length (mi)                  | 16.30             |                |
| Free space loss (dB)              | 128.20            |                |
| Atmospheric absorption loss (dB)  | 0.16              |                |
| Net path loss (dB)                | 71.13             | 71.13          |
| Radio model                       | MDR-6702-8        | MDR-6702-8     |
| TX power (watts)                  | 1.00              | 1.00           |
| TX power (dBm)                    | 30.00             | 30.00          |
| EIRP (dBm)                        | 59.30             | 57.93          |
| Emission designator               | 2M50D7W           | 2M50D7W        |
| TX Channels                       | 1H 2352.5000H     | 1L 2307.5000H  |
| RX threshold criteria             | BER 10-6          | BER 10-6       |
| RX threshold level (dBm)          | -79.00            | -79.00         |
| Maximum receive signal (dBm)      | -10.00            | -10.00         |
| RX signal (dBm)                   | -41.13            | -41.13         |
| Thermal fade margin (dB)          | 37.87             | 37.87          |
| Dispersive fade margin (dB)       | 68.00             | 68.00          |
| Dispersive fade occurrence factor | 1.00              |                |
| Effective fade margin (dB)        | 37.86             | 37.86          |
| C factor                          | 6.00              |                |
| Fade occurrence factor (Po)       | 1.52E-01          |                |
| Average annual temperature (°F)   | 70.00             |                |
| Worst month - multipath (%)       | 99.99752          | 99.99752       |
| (sec)                             | 65.12             | 65.12          |
| Annual - multipath (%)            | 99.99913          | 99.99913       |
| (sec)                             | 273.50            | 273.50         |
| (% - sec)                         | 99.99827 - 547.00 |                |

Fri, Dec 04 2008

GI-43AA-WD-89.pl4

Reliability Method - Vigants - Barnett

**CONSENTS OF NW SPECTRUM CO. AND**  
**WCS WIRELESS LICENSE SUBSIDIARY, LLC**



February 16, 2010

Bruce Henoch  
Vice President, Legal and Regulatory Affairs  
Stratos Offshore Services Company  
6550 Rock Spring Drive, Suite 650  
Bethesda, Maryland 20817

**Re:    Temporary Use of WCS Spectrum in 12 Mile Coastal Zone  
            Under Call Sign KNLB215**

Dear Mr. Henoch:

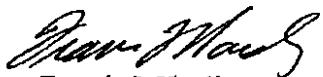
Stratos Offshore Services Company ("Stratos") has requested that NW Spectrum Co. ("NW Spectrum") consent to Stratos' use of NW Spectrum's WCS spectrum in the Gulf of Mexico under call sign KNLB215 on a temporary basis for a period of one hundred and eighty (180) days to permit the continued operation of links necessary for the monitoring and protection of its customers' offshore assets. NW Spectrum consents to such use, subject to the following conditions:

- The temporary facilities must comply with the Communications Act, the Code of Federal Regulations, and all other FCC rules applicable to use of the spectrum.
- The temporary facilities must operate under the specifications included in Attachment 1 hereto. NW Spectrum must be informed of any change from such specifications and approve such change in advance of its implementation.
- Temporary use of the WCS spectrum is subject to receipt by Stratos of an appropriate Special Temporary Authority ("STA") by the Federal Communications Commission, and such temporary use shall end when the 180 day STA term expires.
- Stratos will designate a contact person that will be available 24 hours each day, 7 days each week, during the period of time the temporary equipment is operational to allow NW Spectrum or its affiliates to report any interference to its operations associated with these licenses. Stratos shall also designate a back-up to be contacted by NW Spectrum if the primary contact is unavailable. Contact information for both persons will be delivered to NW Spectrum within ten (10) days of the date hereof, and shall include, at a minimum, the contact's name, title, company name, office telephone number, mobile telephone number, e-mail address, mailing address.

- If NW Spectrum or any of its affiliates report any interference, or if Stratos receives any information that its operations on the spectrum are suspected of or claimed to be causing interference to authorized spectrum users or otherwise not in compliance with FCC rules or the conditions of Stratos' STA, Stratos will immediately turn off the temporary equipment until the cause of the interference or noncompliance is resolved to NW Spectrum's satisfaction.
- Stratos agrees to indemnify NW Spectrum for any claims, expenses, liability, suits or damages arising out of or relating to Stratos' actions or omissions associated with its activities in using the spectrum.
- If either or both of the licenses is revoked, cancelled, terminated or otherwise ceases to be in effect, Stratos shall have no continuing authority or right to use the spectrum unless otherwise authorized by the FCC.
- This arrangement is not an assignment, sale or transfer of the Licenses.

If you have any questions or require additional information, please contact me via the letterhead information.

Regards,



Francis J. Harding  
Executive VP CFO  
NextWave Wireless, Inc.



February 16, 2010

Bruce Henoch  
Vice President, Legal and Regulatory Affairs  
Stratos Offshore Services Company  
6550 Rock Spring Drive, Suite 650  
Bethesda, Maryland 20817

Re: Temporary Use of WCS Spectrum in 12 Mile Coastal Zone  
Under Call Signs KNLB298 and KNLB299

Dear Mr. Henoch:

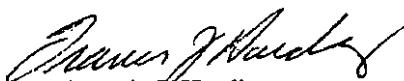
Stratos Offshore Services Company ("Stratos") has requested that WCS Wireless License Subsidiary, LLC ("WCS Wireless") consent to Stratos' use of WCS Wireless' WCS spectrum in the Gulf of Mexico under call signs KNLB298 and KNLB299 on a temporary basis for a period of one hundred and eighty (180) days to permit the continued operation of links necessary for the monitoring and protection of its customers' offshore assets. WCS Wireless consents to such use, subject to the following conditions:

- The temporary facilities must comply with the Communications Act, the Code of Federal Regulations, and all other FCC rules applicable to use of the spectrum.
- The temporary facilities must operate under the specifications included in Attachment 1 hereto. WCS Wireless must be informed of any change from such specifications and approve such change in advance of its implementation.
- Temporary use of the WCS spectrum is subject to receipt by Stratos of an appropriate Special Temporary Authority ("STA") by the Federal Communications Commission, and such temporary use shall end when the 180 day STA term expires.
- Stratos will designate a contact person that will be available 24 hours each day, 7 days each week, during the period of time the temporary equipment is operational to allow WCS Wireless or its affiliates to report any interference to its operations associated with these licenses. Stratos shall also designate a back-up to be contacted by WCS Wireless if the primary contact is unavailable. Contact information for both persons will be delivered to WCS Wireless within ten (10) days of the date hereof, and shall include, at a minimum, the contact's name, title, company name, office telephone number, mobile telephone number, e-mail address, mailing address.
- If WCS Wireless or any of its affiliates report any interference, or if Stratos receives any information that its operations on the spectrum are suspected of or claimed to be causing interference to authorized spectrum users or otherwise not in compliance with FCC rules or the conditions of Stratos' STA, Stratos will immediately turn off the temporary equipment until the cause of the interference or noncompliance is resolved to WCS Wireless' satisfaction.

- Stratos agrees to indemnify WCS Wireless for any claims, expenses, liability, suits or damages arising out of or relating to Stratos' actions or omissions associated with its activities in using the spectrum.
- If either or both of the licenses is revoked, cancelled, terminated or otherwise ceases to be in effect, Stratos shall have no continuing authority or right to use the spectrum unless otherwise authorized by the FCC.
- This arrangement is not an assignment, sale or transfer of the Licenses.

If you have any questions or require additional information, please contact me via the letterhead information.

Regards,



Francis J. Harding  
Executive VP CFO  
NextWave Wireless, Inc.

**ATTACHMENT 1**

|                                   | MI-703            | MI-696         |
|-----------------------------------|-------------------|----------------|
| Elevation (ft)                    | 0.00              | 0.00           |
| Latitude                          | 27 53 44.00 N     | 27 53 09.40 N  |
| Longitude                         | 096 25 40.75 W    | 096 44 38.20 W |
| True azimuth (°)                  | 268.11            | 87.97          |
| Vertical angle (°)                | -0.16             | -0.05          |
| Antenna model                     | GHF10-23A         | GHF10-23A      |
| Antenna height (ft)               | 185.00            | 95.00          |
| Antenna gain (dBi)                | 35.00             | 35.00          |
| TX line type                      | LDF4-50A          | LDF4-50A       |
| TX line length (ft)               | 185.00            | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60              | 3.60           |
| TX line loss (dB)                 | 6.66              | 3.60           |
| Connector loss (dB)               | 0.20              | 0.20           |
| Frequency (MHz)                   | 2333.00           |                |
| Polarization                      | Vertical          |                |
| Path length (mi)                  | 19.34             |                |
| Free space loss (dB)              | 129.69            |                |
| Atmospheric absorption loss (dB)  | 0.19              |                |
| Net path loss (dB)                | 70.54             | 70.54          |
| Radio model                       | MDR-8702-2W       | MDR-8702-2W    |
| TX power (watts)                  | 1.00              | 1.00           |
| TX power (dBm)                    | 30.00             | 30.00          |
| EIRP (dBm)                        | 58.14             | 61.20          |
| Emission designator               | 800KD7W           | 800KD7W        |
| TX Channels                       | 1L 2311.2500V     | 1H 2358.2500V  |
| RX threshold criteria             | BER 10-6          | BER 10-6       |
| RX threshold level (dBm)          | --82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00            | -17.00         |
| RX signal (dBm)                   | -40.54            | -40.54         |
| Thermal fade margin (dB)          | 41.46             | 41.46          |
| Dispersive fade margin (dB)       | 70.00             | 70.00          |
| Dispersive fade occurrence factor | 1.00              |                |
| Effective fade margin (dB)        | 41.45             | 41.45          |
| C factor                          | 6.00              |                |
| Fade occurrence factor (Po)       | 2.53E-01          |                |
| Average annual temperature (°F)   | 70.00             |                |
| Worst month - multipath (%)       | 99.99819          | 99.99819       |
| (sec)                             | 47.62             | 47.62          |
| Annual - multipath (%)            | 99.99937          | 99.99937       |
| (sec)                             | 200.02            | 200.02         |
| (% - sec)                         | 99.99873 - 400.03 |                |

Fri, Dec 04 2009

MAT703-MI696.pl4

Reliability Method - Vigants - Barnett

|                                   | BA451              | BAA19           |
|-----------------------------------|--------------------|-----------------|
| Elevation (ft)                    | 0.00               | 0.00            |
| Latitude                          | 28 29 37.90 N      | 28 10 51.00 N   |
| Longitude                         | 095 43 28.80 W     | 095 35 12.80 W  |
| True azimuth (°)                  | 158.69             | 338.76          |
| Vertical angle (°)                | -0.10              | -0.15           |
| Antenna model                     | GHF8-23A           | GHF6-23A        |
| Antenna height (ft)               | 145.00             | 195.00          |
| Antenna gain (dBi)                | 33.10              | 30.60           |
| TX line type                      | LDF5-50A           | LDF5-50A        |
| TX line length (ft)               | 200.00             | 250.00          |
| TX line unit loss (dB /100 ft)    | 2.07               | 2.07            |
| TX line loss (dB)                 | 4.15               | 5.18            |
| Connector loss (dB)               | 0.20               | 0.20            |
| Frequency (MHz)                   | 2333.00            |                 |
| Polarization                      | Vertical           |                 |
| Path length (mi)                  | 23.13              |                 |
| Free space loss (dB)              | 131.24             |                 |
| Atmospheric absorption loss (dB)  | 0.23               |                 |
| Net path loss (dB)                | 77.50              | 77.50           |
| Radio model                       | XE2000_500K_64Q    | XE2000_500K_64Q |
| TX power (watts)                  | 0.79               | 0.79            |
| TX power (dBm)                    | 29.00              | 29.00           |
| EIRP (dBm)                        | 57.75              | 54.22           |
| Emission designator               | 500K0D7WEN         | 500K0D7WEN      |
| TX Channels                       | 1H 2347.5000V      | 1L 2315.5000V   |
| RX threshold criteria             | BER 10-6           | BER 10-6        |
| RX threshold level (dBm)          | -87.00             | -87.00          |
| Maximum receive signal (dBm)      | -10.00             | -10.00          |
| RX signal (dBm)                   | -48.50             | -48.50          |
| Thermal fade margin (dB)          | 38.50              | 38.50           |
| Dispersive fade margin (dB)       | 118.00             | 118.00          |
| Dispersive fade occurrence factor | 1.00               |                 |
| Effective fade margin (dB)        | 38.50              | 38.50           |
| C factor                          | 6.00               |                 |
| Fade occurrence factor (Po)       | 4.33E-01           |                 |
| Average annual temperature (°F)   | 70.00              |                 |
| Worst month - multipath (%)       | 99.99388           | 99.99388        |
| (sec)                             | 160.86             | 160.86          |
| Annual - multipath (%)            | 99.99786           | 99.99786        |
| (sec)                             | 675.61             | 675.61          |
| (% - sec)                         | 99.99572 - 1351.22 |                 |

Fri, Dec 04 2009

BA451-BAA19.pl4

Reliability Method - Vigants - Barnett

**CONSENT OF UNRESTRICTED**  
**SUBSIDIARY FUNDING COMPANY**

SPRINT

Top Secret//COMINT

Sprint Nextel Corporation  
Stratos Offshore Services Company  
Engineering, Policy, Planning & Services  
Gulf of Mexico Project

Sprint Reporting  
Director

February 15, 2010

Bruce Henoch  
Vice President, Legal and Regulatory Affairs  
Stratos Offshore Services Company  
6550 Rock Spring Drive, Suite 650  
Bethesda, Maryland 20817

Re: Temporary Use of WCS Spectrum in 12 Mile Coastal Zone  
Under Call Sign WPSL356

Dear Mr. Henoch:

Stratos Offshore Services Company ("Stratos") has requested that Unrestricted Subsidiary Funding Company, an Indirect wholly-owned subsidiary of Sprint Nextel Corp. ("Sprint"), consent to Stratos' use of Sprint's WCS spectrum in the Gulf of Mexico under call sign WPSL356 on a temporary basis for a period of one hundred and eighty (180) days to permit the continued operation of links necessary for the monitoring and protection of its customers' offshore assets. Sprint consents to such use, subject to the following conditions:

- The temporary facilities must comply with the Communications Act, the Code of Federal Regulations, and all other FCC rules applicable to use of the spectrum.
- The temporary facilities must operate under the specifications included in Attachment 1 hereto. Sprint must be informed of any change from such specifications and approve such change in advance of its implementation.
- Temporary use of the WCS spectrum is subject to receipt by Stratos of an appropriate Special Temporary Authority ("STA") by the Federal Communications Commission, and such temporary use shall end when the 180 day STA term expires.
- Stratos will designate a contact person that will be available 24 hours each day, 7 days each week, during the period of time the temporary equipment is operational to allow Sprint or its affiliates to report any interference to its operations associated with these licenses. Stratos shall also designate a back-up to be contacted by WCS Wireless if the primary contact is unavailable. Contact information for both persons will be delivered to Sprint within ten (10) days of the date hereof, and shall include, at a minimum, the contact's name, title, company name, office telephone number, mobile telephone number, e-mail address, mailing address.
- If Sprint or any of its affiliates report any interference, or if Stratos receives any information that its operations on the spectrum are suspected of or claimed to be causing interference to authorized spectrum users or otherwise not in compliance with FCC rules or the conditions of Stratos' STA, Stratos will immediately turn off the temporary equipment until the cause of the interference or noncompliance is resolved to Sprint's satisfaction.
- Stratos agrees to indemnify Sprint for any claims, expenses, liability, suits or damages arising out of or relating to Stratos' actions or omissions associated with its activities in using the spectrum.
- If the license for WPSL356 is revoked, cancelled, terminated or otherwise ceases to be in effect, Stratos shall have no continuing authority or right to use the spectrum unless otherwise authorized by the FCC.
- This arrangement is not an assignment, sale or transfer of the license for WPSL356.

If you have any questions or require additional information, please contact me via the letterhead information.

Regards,

*Shawn Perkins*

Attachment

**ATTACHMENT 1**

|                                   | PL10            | PL-2JA         |
|-----------------------------------|-----------------|----------------|
| Elevation (ft)                    | 0.00            | 0.00           |
| Latitude                          | 28 56 53.00 N   | 29 00 27.00 N  |
| Longitude                         | 090 43 26.00 W  | 090 39 26.00 W |
| True azimuth (°)                  | 44.58           | 224.62         |
| Vertical angle (°)                | -0.04           | -0.03          |
| Antenna model                     | GHF6-23A        | GHF6-23A       |
| Antenna height (ft)               | 65.00           | 63.00          |
| Antenna gain (dBi)                | 30.60           | 30.60          |
| TX line type                      | LDF4-50A        | LDF4-50A       |
| TX line length (ft)               | 100.00          | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60            | 3.60           |
| TX line loss (dB)                 | 3.60            | 3.60           |
| Connector loss (dB)               | 0.20            | 0.20           |
| Frequency (MHz)                   | 2333.00         |                |
| Polarization                      | Horizontal      |                |
| Path length (mi)                  | 5.75            |                |
| Free space loss (dB)              | 119.15          |                |
| Atmospheric absorption loss (dB)  | 0.06            |                |
| Net path loss (dB)                | 65.61           | 65.61          |
| Radio model                       | MDR-8702-2W     | MDR-8702-2W    |
| TX power (watts)                  | 0.50            | 0.50           |
| TX power (dBm)                    | 27.00           | 27.00          |
| EIRP (dBm)                        | 53.80           | 53.80          |
| Emission designator               | 800KD7W         | 800KD7W        |
| TX Channels                       | 1L 2311.2500H   | 1H 2358.2500H  |
| RX threshold criteria             | BER 10-6        | BER 10-6       |
| RX threshold level (dBm)          | -82.00          | -82.00         |
| Maximum receive signal (dBm)      | -17.00          | -17.00         |
| RX signal (dBm)                   | -38.61          | -38.61         |
| Thermal fade margin (dB)          | 43.39           | 43.39          |
| Dispersive fade margin (dB)       | 70.00           | 70.00          |
| Dispersive fade occurrence factor | 1.00            |                |
| Effective fade margin (dB)        | 43.38           | 43.38          |
| C factor                          | 6.00            |                |
| Fade occurrence factor (Po)       | 6.65E-03        |                |
| Average annual temperature (°F)   | 70.00           |                |
| Worst month - multipath (%)       | 99.99997        | 99.99997       |
| (sec)                             | 0.80            | 0.80           |
| Annual - multipath (%)            | 99.99999        | 99.99999       |
| (sec)                             | 3.37            | 3.37           |
| (% - sec)                         | 99.99998 - 6.74 |                |

Fri, Dec 04 2009

PL10-PL2JA.pl4

Reliability Method - Vigants - Barnett

|                                   | PL10            | SS-91B         |
|-----------------------------------|-----------------|----------------|
| Elevation (ft)                    | 0.00            | 0.00           |
| Latitude                          | 28 55 53.00 N   | 28 55 07.65 N  |
| Longitude                         | 090 43 26.00 W  | 090 46 22.70 W |
| True azimuth (°)                  | 235.88          | 55.86          |
| Vertical angle (°)                | -0.28           | 0.24           |
| Antenna model                     | GHF6-23A        | GHF6-23A       |
| Antenna height (ft)               | 130.00          | 45.00          |
| Antenna gain (dBi)                | 30.60           | 30.60          |
| TX line type                      | LDF4-50A        | LDF4-50A       |
| TX line length (ft)               | 130.00          | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60            | 3.60           |
| TX line loss (dB)                 | 4.68            | 3.60           |
| Connector loss (dB)               | 0.20            | 0.20           |
| Frequency (MHz)                   | 2333.00         |                |
| Polarization                      | Horizontal      |                |
| Path length (mi)                  | 3.59            |                |
| Free space loss (dB)              | 115.07          |                |
| Atmospheric absorption loss (dB)  | 0.04            |                |
| Net path loss (dB)                | 62.58           | 62.58          |
| Radio model                       | MDR-8702-2W     | MDR-8702-2W    |
| TX power (watts)                  | 0.10            | 0.10           |
| TX power (dBm)                    | 20.00           | 20.00          |
| EIRP (dBm)                        | 45.72           | 46.80          |
| Emission designator               | 800KD7W         | 800KD7W        |
| TX Channels                       | 1L 2310.4170H   | 1H 2355.4170H  |
| RX threshold criteria             | BER 10-6        | BER 10-6       |
| RX threshold level (dBm)          | -82.00          | -82.00         |
| Maximum receive signal (dBm)      | -17.00          | -17.00         |
| RX signal (dBm)                   | -42.58          | -42.58         |
| Thermal fade margin (dB)          | 39.42           | 39.42          |
| Dispersive fade margin (dB)       | 70.00           | 70.00          |
| Dispersive fade occurrence factor | 1.00            |                |
| Effective fade margin (dB)        | 39.42           | 39.42          |
| C factor                          | 6.00            |                |
| Fade occurrence factor (Po)       | 1.62E-03        |                |
| Average annual temperature (°F)   | 70.00           |                |
| Worst month - multipath (%)       | 99.99998        | 99.99998       |
| (sec)                             | 0.49            | 0.49           |
| Annual - multipath (%)            | 99.99999        | 99.99999       |
| (sec)                             | 2.05            | 2.05           |
| (% - sec)                         | 99.99999 - 4.10 |                |

Mon, Dec 07 2009  
 PL10-SS91B.pl4  
 Reliability Method - Vigants - Barnett

|                                   | SP57/78B           | SP-52-A        |
|-----------------------------------|--------------------|----------------|
| Elevation (ft)                    | 0.00               | 0.00           |
| Latitude                          | 28 50 38.80 N      | 28 50 28.50 N  |
| Longitude                         | 089 23 47.10 W     | 089 08 22.48 W |
| True azimuth (°)                  | 90.66              | 270.79         |
| Vertical angle (°)                | -0.09              | -0.08          |
| Antenna model                     | GHF6-23A           | GHF6-23A       |
| Antenna height (ft)               | 110.00             | 100.00         |
| Antenna gain (dBi)                | 30.60              | 30.60          |
| TX line type                      | LDF4-50A           | LDF4-50A       |
| TX line length (ft)               | 100.00             | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60               | 3.60           |
| TX line loss (dB)                 | 3.60               | 3.60           |
| Connector loss (dB)               | 0.20               | 0.20           |
| Frequency (MHz)                   | 2333.00            |                |
| Polarization                      | Horizontal         |                |
| Path length (mi)                  | 15.58              |                |
| Free space loss (dB)              | 127.81             |                |
| Atmospheric absorption loss (dB)  | 0.16               |                |
| Net path loss (dB)                | 74.36              | 74.36          |
| Radio model                       | MDR-8702-2W        | MDR-8702-2W    |
| TX power (watts)                  | 0.50               | 0.50           |
| TX power (dBm)                    | 27.00              | 27.00          |
| EIRP (dBm)                        | 53.80              | 53.80          |
| Emission designator               | 800KD7W            | 800KD7W        |
| TX Channels                       | 1L 2314.5830H      | 1H 2359.5830H  |
| RX threshold criteria             | BER 10-8           | BER 10-6       |
| RX threshold level (dBm)          | -82.00             | -82.00         |
| Maximum receive signal (dBm)      | -17.00             | -17.00         |
| RX signal (dBm)                   | -47.36             | -47.36         |
| Thermal fade margin (dB)          | 34.64              | 34.64          |
| Dispersive fade margin (dB)       | 70.00              | 70.00          |
| Dispersive fade occurrence factor | 1.00               |                |
| Effective fade margin (dB)        | 34.64              | 34.64          |
| C factor                          | 6.00               |                |
| Fade occurrence factor (Po)       | 1.32E-01           |                |
| Average annual temperature (°F)   | 70.00              |                |
| Worst month - multipath (%)       | 99.99545           | 99.99545       |
| (sec)                             | 119.49             | 119.49         |
| Annual - multipath (%)            | 99.99841           | 99.99841       |
| (sec)                             | 501.86             | 501.86         |
| (% - sec)                         | 99.99682 - 1003.71 |                |

Fri, Dec 04 2009

SP5778B-SP52A.pl4

Reliability Method - Vigants - Barnett

|                                   | SP57/78B         | SP-75-A        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 28 50 38.80 N    | 28 48 06.80 N  |
| Longitude                         | 089 23 47.10 W   | 089 17 59.10 W |
| True azimuth (°)                  | 116.36           | 296.40         |
| Vertical angle (°)                | -0.04            | -0.04          |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 65.00            | 65.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 6.54             |                |
| Free space loss (dB)              | 120.28           |                |
| Atmospheric absorption loss (dB)  | 0.07             |                |
| Net path loss (dB)                | 66.74            | 66.74          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.50             | 0.50           |
| TX power (dBm)                    | 27.00            | 27.00          |
| EIRP (dBm)                        | 53.80            | 53.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1L 2312.9170H    | 1H 2357.9170H  |
| RX threshold criteria             | BER 10-8         | BER 10-8       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -39.74           | -39.74         |
| Thermal fade margin (dB)          | 42.26            | 42.26          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 42.25            | 42.25          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 9.81E-03         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 99.99994         | 99.99994       |
| (sec)                             | 1.53             | 1.53           |
| Annual - multipath (%)            | 99.99998         | 99.99998       |
| (sec)                             | 6.45             | 6.45           |
| (% - sec)                         | 99.99996 - 12.89 |                |

Fri, Dec 04 2009

SP5778B-SP75-A.pl4

Reliability Method - Vigants - Barnett

|                                   | MP140B           | MP-140A        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 29 17 44.70 N    | 29 17 37.93 N  |
| Longitude                         | 088 50 31.10 W   | 088 51 42.05 W |
| True azimuth (°)                  | 263.79           | 83.78          |
| Vertical angle (°)                | -0.13            | 0.12           |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 65.00            | 51.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 1.20             |                |
| Free space loss (dB)              | 105.52           |                |
| Atmospheric absorption loss (dB)  | 0.01             |                |
| Net path loss (dB)                | 51.93            | 51.93          |
| Radio model                       | MDR-8702-2W      | MOR-8702-2W    |
| TX power (watts)                  | 0.10             | 0.10           |
| TX power (dBm)                    | 20.00            | 20.00          |
| EIRP (dBm)                        | 46.80            | 46.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1L 2311.2500H    | 1H 2356.2500H  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -31.93           | -31.93         |
| Thermal fade margin (dB)          | 50.07            | 50.07          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 50.03            | 50.03          |
| C factor                          | 6.00             |                |
| Fade occurrence factor ( $P_o$ )  | 6.00E-05         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 100.00000        | 100.00000      |
| (sec)                             | 1.57e-03         | 1.57e-03       |
| Annual - multipath (%)            | 100.00000        | 100.00000      |
| (sec)                             | 6.58e-03         | 6.58e-03       |
| (% - sec)                         | 100.00000 - 0.01 |                |

Fri, Dec 04 2009

MP140B-MP140A.pl4

Reliability Method - Vigants - Barnett

|                                   | WD90B            | WD-105E        |
|-----------------------------------|------------------|----------------|
| Elevation (ft)                    | 0.00             | 0.00           |
| Latitude                          | 28 56 16.80 N    | 28 51 04.00 N  |
| Longitude                         | 089 39 35.20 W   | 089 36 03.00 W |
| True azimuth (°)                  | 149.15           | 329.18         |
| Vertical angle (°)                | -0.05            | -0.02          |
| Antenna model                     | GHF6-23A         | GHF6-23A       |
| Antenna height (ft)               | 65.00            | 55.00          |
| Antenna gain (dBi)                | 30.60            | 30.60          |
| TX line type                      | LDF4-50A         | LDF4-50A       |
| TX line length (ft)               | 100.00           | 100.00         |
| TX line unit loss (dB /100 ft)    | 3.60             | 3.60           |
| TX line loss (dB)                 | 3.60             | 3.60           |
| Connector loss (dB)               | 0.20             | 0.20           |
| Frequency (MHz)                   | 2333.00          |                |
| Polarization                      | Horizontal       |                |
| Path length (mi)                  | 6.97             |                |
| Free space loss (dB)              | 120.82           |                |
| Atmospheric absorption loss (dB)  | 0.07             |                |
| Net path loss (dB)                | 67.29            | 67.29          |
| Radio model                       | MDR-8702-2W      | MDR-8702-2W    |
| TX power (watts)                  | 0.50             | 0.50           |
| TX power (dBm)                    | 27.00            | 27.00          |
| EIRP (dBm)                        | 53.80            | 53.80          |
| Emission designator               | 800KD7W          | 800KD7W        |
| TX Channels                       | 1H 2357.0830H    | 1L 2312.0830H  |
| RX threshold criteria             | BER 10-6         | BER 10-6       |
| RX threshold level (dBm)          | -82.00           | -82.00         |
| Maximum receive signal (dBm)      | -17.00           | -17.00         |
| RX signal (dBm)                   | -40.29           | -40.29         |
| Thermal fade margin (dB)          | 41.71            | 41.71          |
| Dispersive fade margin (dB)       | 70.00            | 70.00          |
| Dispersive fade occurrence factor | 1.00             |                |
| Effective fade margin (dB)        | 41.70            | 41.70          |
| C factor                          | 6.00             |                |
| Fade occurrence factor (Po)       | 1.18E-02         |                |
| Average annual temperature (°F)   | 70.00            |                |
| Worst month - multipath (%)       | 99.99992         | 99.99992       |
| (sec)                             | 2.10             | 2.10           |
| Annual - multipath (%)            | 99.99997         | 99.99997       |
| (sec)                             | 8.84             | 8.84           |
| (% - sec)                         | 99.99994 - 17.67 |                |

Mon, Dec 07 2009

WD90B-WD105E.pl4

Reliability Method - Vigants - Barnett

|                                   | GI-43AA           | WD-89          |
|-----------------------------------|-------------------|----------------|
| Elevation (ft)                    | 0.00              | 0.00           |
| Latitude                          | 29 00 03.00 N     | 28 54 05.00 N  |
| Longitude                         | 089 51 31.00 W    | 089 36 52.00 W |
| True azimuth (°)                  | 114.79            | 294.91         |
| Vertical angle (°)                | -0.07             | -0.11          |
| Antenna model                     | GHF8-23           | GHF8-23        |
| Antenna height (ft)               | 108.00            | 138.00         |
| Antenna gain (dBi)                | 33.10             | 33.10          |
| TX line type                      | LDF4-50A          | LDF4-50A       |
| TX line length (ft)               | 100.00            | 138.00         |
| TX line unit loss (dB /100 ft)    | 3.60              | 3.60           |
| TX line loss (dB)                 | 3.60              | 4.97           |
| Connector loss (dB)               | 0.20              | 0.20           |
| Frequency (MHz)                   | 2333.00           |                |
| Polarization                      | Horizontal        |                |
| Path length (mi)                  | 16.30             |                |
| Free space loss (dB)              | 128.20            |                |
| Atmospheric absorption loss (dB)  | 0.16              |                |
| Net path loss (dB)                | 71.13             | 71.13          |
| Radio model                       | MDR-6702-8        | MDR-6702-8     |
| TX power (watts)                  | 1.00              | 1.00           |
| TX power (dBm)                    | 30.00             | 30.00          |
| EIRP (dBm)                        | 59.30             | 57.93          |
| Emission designator               | 2M50D7W           | 2M50D7W        |
| TX Channels                       | 1H 2352.5000H     | 1L 2307.5000H  |
| RX threshold criteria             | BER 10-6          | BER 10-6       |
| RX threshold level (dBm)          | -79.00            | -79.00         |
| Maximum receive signal (dBm)      | -10.00            | -10.00         |
| RX signal (dBm)                   | -41.13            | -41.13         |
| Thermal fade margin (dB)          | 37.87             | 37.87          |
| Dispersive fade margin (dB)       | 68.00             | 68.00          |
| Dispersive fade occurrence factor | 1.00              |                |
| Effective fade margin (dB)        | 37.86             | 37.86          |
| C factor                          | 6.00              |                |
| Fade occurrence factor (Po)       | 1.52E-01          |                |
| Average annual temperature (°F)   | 70.00             |                |
| Worst month - multipath (%)       | 99.99752          | 99.99752       |
| (sec)                             | 65.12             | 65.12          |
| Annual - multipath (%)            | 99.99913          | 99.99913       |
| (sec)                             | 273.50            | 273.50         |
| (% - sec)                         | 99.99827 - 547.00 |                |

Fri, Dec 04 2009

GI-43AA-WD-89.pl4

Reliability Method - Vigants - Barnett